

Mineral Industry Surveys

For information, contact:

James F. Carlin, Jr., Acting Bismuth Commodity Specialist
U.S. Geological Survey
989 National Center
Reston, VA 20192
Telephone: (703) 648-4985, Fax: (703) 648-7757
E-mail: jcarlin@usgs.gov

Robin Kaiser (Data)
Telephone: (703) 648-7948
Fax: (703) 648-7792
E-mail: rkaiser@usgs.gov

Internet: <http://minerals.usgs.gov/minerals>

BISMUTH IN THE FIRST QUARTER 2006

Total bismuth consumption in the United States for the first quarter of 2006 was 515 metric tons (t), which was about 12% below that in the first quarter of 2005, according to estimates compiled by the U.S. Geological Survey. The estimated consumption breakdown for bismuth in the first quarter was about 53% for metallurgical additives and galvanizing; 30% for fusible alloys, solders, and ammunition; 16% for chemical and pharmaceutical uses; and 1% for other (table 2).

The New York dealer price for bismuth, as published in Platts Metals Week, started the month of January at \$4.50 to \$4.80 per pound and remained in a narrow trading range through March, ending the first quarter at \$4.45 to \$4.70 per pound.

Fortune Minerals Ltd. (London, Ontario, Canada) announced that it has launched the first phase of a \$9.5 million underground bulk sample program at its 81% owned NICO gold-cobalt-bismuth project in the Northwest Territories, Canada, located 160 kilometers northwest of Yellowknife. The objective of the sampling is to verify the continuity of grades in the central part of the deposit, evaluate conditions for larger scale mining operations, and collect samples of mineralized material for larger scale pilot plant processing. Mining was expected to

commence in May with development of an underground access portal and ramp near the proposed plant site. About 2,700 metric tons (t) of mineralized material were expected to be mined and 57,000 t of waste rock moved by October 2006. Fortune planned to truck representative samples of the mineralized material to SGS Lakefield Research Ltd. in Ontario for pilot plant testing in early 2007. A complete feasibility study was expected to be completed in mid-2006. Fortune estimates that the NICO deposit contains 35,000 t (77 million pounds) of bismuth (Fortune Minerals Ltd., 2006).

Update

On June 1, 2006, the Platts Metal Week price for bismuth was \$4.35 to \$4.55 per pound.

Reference Cited

Fortune Minerals Ltd., 2006, Fortune Minerals initiates NICO underground bulk sample program: London, Ontario, Canada, Fortune Minerals Ltd. press release, April 4, 1 p.

TABLE 1
SALIENT BISMUTH STATISTICS¹

(Kilograms unless otherwise specified)

	2005 ^p	2006 First quarter
Consumption	2,280,000	515,000
Exports ²	142,000	20,100 ³
Imports for consumption	2,530,000	297,000 ³
Price per pound, dealer, average of period	\$3.91	\$4.70
Stocks, end of period, consumer	134,000 ^r	129,000

^pPreliminary. ^rRevised.

¹Data are rounded to no more than three significant digits.

²Comprises bismuth metal and the bismuth content of alloys and waste and scrap.

³Import and export data for March 2006 were not available at time of publication.

TABLE 2
ESTIMATED BISMUTH METAL CONSUMED
IN THE UNITED STATES, BY USE¹

(Kilograms)

Use	2005 ^p	2006 First quarter
Chemicals ²	500,000	83,500
Bismuth alloys	669,000	157,000
Metallurgical additives	1,090,000 ^r	270,000
Other	15,700 ^r	3,840
Total	2,280,000 ^r	515,000

^pPreliminary ^rRevised.

¹Data are rounded to no more than three significant digits, may not add totals shown.

²Includes industrial and laboratory chemicals, cosmetics, and pharmaceuticals.

TABLE 3
U.S. EXPORTS OF BISMUTH METAL, ALLOYS AND WASTE AND SCRAP, BY COUNTRY¹

(Kilograms, metal content)

Country	2005			2006		
	Final	December	Fourth quarter	January	February	First quarter ²
Argentina	240	--	--	--	--	--
Belgium	17,000	--	16,900	--	--	--
Brazil	4,260	--	268	--	--	--
Canada	70,100	1,500	21,700	8,600	1,040	9,640
Chile	1,560	--	1,190	326	590	916
China	35	--	--	--	--	--
Colombia	39	--	39	--	--	--
Dominican Republic	5,420	458	713	1	6,050	6,050
France	10,100	--	--	22	--	22
Hong Kong	234	10	66	--	--	--
India	2,000	--	--	22	--	22
Ireland	618	--	--	--	--	--
Italy	50	--	--	--	--	--
Japan	2,100	--	--	518	1,500	2,020
Korea, Republic of	293	293	293	60	99	159
Malaysia	11	--	--	--	--	--
Mexico	17,400	2,290	4,280	--	1,180	1,180
Saudi Arabia	--	--	--	50	--	50
Singapore	160	160	160	--	--	--
South Africa	98	--	--	--	--	--
Spain	1,000	--	--	--	--	--
Taiwan	49	--	--	--	--	--
United Kingdom	8,840	--	7,380	--	--	--
Total	142,000	4,700	53,000	9,600	10,500	20,100

-- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Import and export data for March 2006 were not available at time of publication.

Source: U.S. Census Bureau.

TABLE 4
U.S. IMPORTS FOR CONSUMPTION OF BISMUTH METAL, BY COUNTRY¹

(Kilograms)

Country	2005			2006		
	Year	December	Fourth quarter	January	February	First quarter ²
Bahamas, The	2,620	--	1,450	--	--	--
Belgium	1,050,000	80,500	240,000	52,700	48,500	101,000
Canada	7,370	--	597	260	518	778
China	667,000	20,000	100,000	25,100	3,550	28,700
France	--	--	--	3	--	3
Germany	18,500	--	87	20	--	20
Hong Kong	--	--	--	--	18,300	18,300
Italy	106	--	--	--	--	--
Mexico	480,000	80,800	141,000	60,600	47,400	108,000
Netherlands	4	--	--	6	--	6
Spain	700	--	--	300	300	600
United Kingdom	304,000	16,600	84,000	18,100	21,400	39,500
Total	2,530,000	198,000	567,000	157,000	140,000	297,000

-- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Import and export data for March 2006 were not available at time of publication.

Source: U.S. Census Bureau.